Streptococcal Pneumonia (Invasive Disease)

Streptococcal pneumonia is a bacterial illness. About 400,000 hospitalizations from pneumococcal pneumonia are estimated to occur annually in the United States. Most S. pneumoniae serotypes have been shown to cause disease, but only a minority of serotypes produce the majority of pneumococcal infections. Pneumococci are commonly found in the respiratory tract and may be isolated from the nasopharynx of 5-90% of healthy persons. Pneumococcus can cause many types of illnesses, including ear infections, pneumonia and meningitis. There are vaccines to prevent pneumococcal disease in children and adults. 

https://www.cdc.gov/pneumococcal/clinicians/streptococcus-pneumoniae.html

Cause: A streptococcus bacteria called Streptococcus pneumoniae.

Symptoms: For pneumococcal pneumonia (lung infection) is the most common serious form of pneumococcal disease. Symptoms include fever, chills, cough, rapid or difficult breathing and chest pain. Older adults with pneumococcal pneumonia may experience confusion or low alertness, rather than the more common symptoms signs and symptoms.

With pneumococcal meningitis an infection of the covering of the brain (meninges) and spinal cord occurs. Symptoms include fever, stiff neck, headache, sensitivity to light and confusion. In babies, meningitis may cause poor eating and drinking, low alertness, and vomiting.

Pneumococcal bacteremia and sepsis are blood infections. Symptoms include fever, chills, and low alertness.

Pneumococcus bacteria causes up to half of middle ear infections (otitis media). Symptoms include ear pain, fever, red and swollen ear drum, sleepiness.

Spread: Transmission occurs through person to person contact in respiratory droplets (talking, coughing, and sneezing) and close or direct contact in persons carrying the bacteria in their upper respiratory tract.

Incubation: The incubation time for pneumococcal disease is unknown but most likely transmission can occur as long as the bacteria appears in respiratory secretions.

Precautions: Standard precautions in the health care settings; if strep throat exclude from work/school until person has been treated for 24hrs with an antibiotic. Persons with impetigo or pyoderma should be excluded from school or childcare until seen by a healthcare provider (if child is
at school, exclude at the end of the day until seen by physician). Good hand washing after being in contact with sores, bandages, or laundry will help control the disease.

**Diagnosis and Treatment:** Diagnosis is made by culturing the bacteria from isolation of the organism from blood or other normally sterile body sites. Treatment will usually include a broad-spectrum cephalosporin, and often vancomycin, until results of antibiotic sensitivity testing are available.

**Prevention:** The best way to prevent pneumococcal disease is being vaccinated. There are two types of vaccines available. **Pneumococcal conjugate vaccine** is indicated for children and can help prevent some ear infections. The **pneumococcal polysaccharide vaccine** along with the pneumococcal conjugate vaccine is now recommended for adults. [https://www.cdc.gov/vaccines/hcp/adults/for-patients/older-adults.html](https://www.cdc.gov/vaccines/hcp/adults/for-patients/older-adults.html)